

Title (en)
SYNTHESIS OF NEW SIALOOLIGOSACCHARIDE DERIVATIVES

Title (de)
SYNTHESE AUS NEUEN SIALOOLIGOSACCHARIDDERIVATEN

Title (fr)
SYNTHÈSE DE NOUVEAUX DÉRIVÉS SIALO-OLIGOSACCHARIDE

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Abstract (en)
[origin: WO2012007585A1] The invention relates to a method for purifying, separating and/or isolating an oligosaccharide of general formula 1 or a salt thereof (general formula 1) wherein R1 is fucosyl or H, R2 is fucosyl or H, R3 is selected from H, sialyl, N-acetyl-lactosaminy and lacto-N-biosyl groups, wherein the N-acetyl lactosaminy group may carry a glycosyl residue comprising one or more N-acetyl-lactosaminy and/or one or more lacto-N-biosyl groups; each of the N-acetyl-lactosaminy and lacto-N-biosyl groups can be substituted with one or more sialyl and/or fucosyl residue, R4 is selected from H, or sialyl and N-acetyl-lactosaminy groups optionally substituted with a glycosyl residue comprising one or more N-acetyl-lactosaminy and/or one or more lacto-N-biosyl groups; each of the N-acetyl-lactosaminy and lacto-N-biosyl groups can be substituted with one or more sialyl and/or fucosyl residue, wherein at least one of the R1, R2, R3 or R4 groups differs from H, comprising the steps: a) one or more compounds of general formula 1 is/are subjected to an anomeric O-alkylation reaction in the presence of R-X to yield a mixture comprising one or more compounds of general formula 2 or salts thereof (general formula 2) wherein X is a leaving group such as halogen, alkyl- or arylsulfonyloxy, R is a group removable by hydrogenolysis, and R1, R2, R3 and R4 are as defined above, and wherein at least one of the R1, R2, R3 or R4 groups differs from H, b) the mixture comprising one or more compounds of general formula 2 obtained in step a) is subjected to chromatography and/or crystallization to give one or more individual compounds of general formula 2 each in substantially pure form, c) an individual compound of general formula 2 in substantially pure form obtained in step b) is subjected to catalytic hydrogenolysis to yield a compound of general formula 1.

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